Crownpoint Coal Field

Location

The Crownpoint coal field is located on the south side of the San Juan Basin in McKinley County, New Mexico. The Crownpoint field encompasses the outcrops of the Crevasse Canyon Formation from the northeastern edge of the Gallup field to the west edge of the San Mateo field.

Stratigraphy

The first comprehensive study of the coal geology and stratigraphy was by Sears (1934). The Gibson Coal Member of the Crevasse Canyon Formation was studied in the subsurface by Campbell and Roybal (1987) and Hoffman (1993). Thicknesses of units are from Sears (1934, text and plate 1).

Table. Stratigraphy—Crownpoint coal field.

Stratigraphic units	Depositional environment	Thickness (ft)
Crevasse Canyon Formation		
Gibson Coal Member	coastal plain; major coal	140-300
Bartlett Barren Member	alluvial plain	0-270
Dalton Sandstone Member	nearshore marine	180
Mancos Shale		
Mulatto Tongue	marine	0-220
Crevasse Canyon Formation		
Dilco Coal Member	coastal plain; coal	148-200
Gallup Sandstone	nearshore marine; coastal plain; coal	80-320

Coal Deposits

Numerous thin beds are present in the Dilco Coal Member of the Crevasse Canyon Formation and Gallup Sandstone (Sears, 1934). The thickest coals are in the Gibson Coal Member of the Crevasse Canyon Formation. Within the Gibson, coals are as thick as 12 ft on outcrop (Sears, 1934, plate 13). In the subsurface, the Gibson coals are in zones of 3 to 13 beds, and individual beds are as thick as 6 ft (Campbell and Roybal, 1987; Hoffman, 1993).

Coal Quality

The Gibson coals are subbituminous B–A and average about 12 percent ash and about 1.4 percent sulfur on an as-received basis (Hoffman, 1996). The table below is from Hoffman (1996).

Table. Coal in Gibson Coal Member.

[Values reported on an as-received basis]

	Ash content (percent)	Sulfur content (percent)	Heating value (Btu/lb)
Average	11.95	1.44	10,037
Standard deviation	5.29	0.73	923
Number of analyses	13	13	13

Resources

The Gibson Coal Member contains about 663 million short tons of demonstrated resources in areas with less than 200 ft of overburden (Hoffman, 1996). The Gibson may contain as much as 15 million short tons of strippable coal (Shomaker, 1971).

Production History

Eleven mines or prospects operated in the coal field between 1918 and 1963 (Nickelson, 1988).

References

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